"Mercury in Fish: Hazard or Hype"

Abstract:

Mercury in fish is an important public health concern. While dietary mercury at high concentration is toxic, its toxicity at the low and naturally occurring concentrations found in open ocean fish is less certain. Mercury poisoning from eating fish occurred in Japan in the 1950s and 1960s. Victims were exposed to extremely high levels of mercury accumulated in fish living in waters heavily polluted by industry. Concentrations of mercury far exceeded those found naturally in ocean fish. There are no outbreaks of mercury poisoning on record from eating ocean fish. Evaluating key mercury outbreaks and the results of long term diet studies help to better understand the risk associated with ocean fish consumption. Selenium interactions with mercury explain why mercury poisoning events have not occurred from eating ocean fish and why mercury at high concentrations can be harmful. The risk assessment of mercury in fish requires the evaluation of selenium. The relative amounts of mercury and selenium distinguish potentially toxic from healthy fish in the diet. Assigning health risk based on mercury concentration alone is incomplete and inadequate.